



Operating Manual

UVAHAND 250 GS H1 / BL

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Responsible for the content: Dr. Hönle AG

Layout: Dr. Hönle AG

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1 Introduction

This Operating Manual describes the UVAHAND 250 GS, how to operate it and its areas of application.

Safety instructions and hazard warnings explain how to operate the UVAHAND 250 GS safely and correctly.

The following symbols and terms are used in the manual:



Danger

This symbol indicates **imminent danger** threatening the life and health of personnel!



Warning

This symbol indicates **possible danger** to the life and health of personnel.



Caution

This symbol refers to a **potentially dangerous** situation



Note

This symbol refers to notes, tips for application and useful information.

2 Description

The UVAHAND 250 GS is a high-intensity ultra-violet (UV) lamp unit designed for mobile applications.

The emission spectrum of the UVAHAND 250 GS has its maximum in the long-wave UV range (UVA).

Various ranges of the spectrum can be filtered out by using different filters.

This makes the UVAHAND 250 GS ideal for use in widely differing areas of application.

The UVAHAND 250 GS consists of a lamp and a ballast unit.

The ballast supplies the electricity for the lamp.



Areas of application

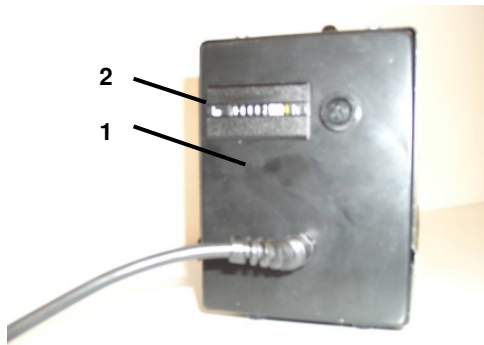
Areas of application

The UVAHAND 250 GS is used in laboratories, in production and repair processes in the following applications:

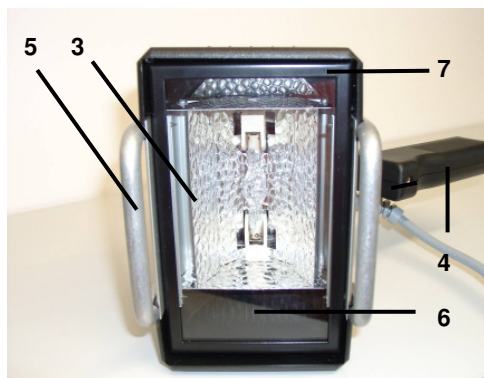
- hardening UV-reactive sealing and casting masses
- bonding glass, plastics and metals
- hardening fibreglass-reinforced polyester resins (e. g. for repairing fibreglass-reinforced plastics on automobiles and boats)
- fluorescence analysis (e.g. in material testing and paint penetration testing)

Description of the individual parts and operating elements

*Individual parts
and operating
elements*



- (1) **Ballast**
Supplies the electricity for the hand-held lamp.
- (2) **Operating hours counter**
Shows the number of operating hours of the ballast.
The operating hours counter is built-in and cannot be reset. It is used to ascertain how many hours of operation the equipment has behind it in order to know when the lamp needs replacing. See the chapter 'Replacing the UV lamp' for details of lamp servicing.



- (3) **Reflector with lamp**
Lamps are available in two different spectra.
- (4) **Handle**
Can be turned 90°.
- (5) **Spacer bar**
- (6) **Filter**
Available in two types.
- (7) **Filter frame**
The filter unit consists of the filter and the filter frame.

3 Safety instructions

General information

General information

A sound knowledge of all basic safety regulations is essential to ensure safe and fault-free operation of the UVAHAND 250 GS. This operating manual contains all important safety regulations to ensure safe operation of the equipment. This operating manual, and in particular the safety instructions, must be observed by all persons working with the equipment.

In addition, all relevant rules and accident prevention regulations relating to the operation site must be observed. At regular intervals, the operator will check that all personnel are observing the safety regulations.

Under the **Health and Safety Management at Work Regulations 1999**, users are required to carry out a suitable and sufficient assessment of the risks created by the use of the UVAHAND 250 GS. They must ensure adequate control measures are in place to minimise or eliminate any of the risks created. The information contained within this manual will assist in creating your own risk assessment.

Staff obligation

Staff obligation

Before commencing work, all persons entrusted with work to be performed on the UVAHAND 250 GS undertake the following:

- to observe the safety at work and accident prevention regulations.
- to read the chapter on safety and the warnings printed in this manual and to observe them at all times while using the equipment.

Danger when using the equipment

Danger when using the equipment

The UVAHAND 250 GS has been manufactured in accordance with the very latest state-of-the-art technology and the recognized rules of safety technology.

The equipment may only be used under the following conditions:

- Personal Protective Equipment (PPE) is worn to protect eyes and skin.

- Materials degrade when exposed to UV light, therefore PPE's must be inspected before use. Damaged or items showing signs of ageing must be replaced.
- It is used for the purpose for which it was constructed
- in a condition in which the equipment complies with all safety technology requirements.



Danger

Improper use of the equipment can endanger the health of personnel using it or cause a risk to third parties (including the risk of serious skin damage or eye injury). It may also cause damage to the device or other material damage.

Safety Symbols on the Equipment

Safety Symbols on the Equipment

The following safety symbols are used on the equipment:



Caution

Mains connection for the power supply of the lamp unit:
The connector receives its power from inside the equipment and is a
hazardously live part.
Voltage 230 V / 50 Hz, current approx. 3 A



Hot Surface

There is an acute danger of fire and burns caused by the high temperature of the filter during operation (up to 200 °C)
See also „Thermal hazards“, p. 12.



UV Radiation

The radiation source of the UVAHAND 250 GS emits UV radiation.
See also „Danger caused by radiation“, p. 13.

Appropriate use

Appropriate use

The UVAHAND 250 GS is a high-intensity ultraviolet area lamp (UV) for the radiation of surfaces.

Any other use or use above and beyond these terms is defined as inappropriate and is thus dangerous.

The UVAHAND 250 GS must not be used for tanning the skin. The high intensity UV would cause burning and may lead to premature skin ageing or skin cancer.

The operator may only operate the equipment as stipulated by the operating instructions in this manual.

The operator is under obligation to ensure that the prescribed inspections and servicing work are carried out and that the indicated replacement of worn parts is effected.

There are International and UK guidelines for restriction of occupational UV exposures.

Useful references:

ICNIRP Guidelines on limiting exposure

(www.icnirp.de)

NRPB Advice on protection (www.nrpb.org)

The following are further conditions for appropriate use:

- the observance of all points listed in the operating manual
- the execution of all servicing and maintenance work
- compliance with the general and specific safety instructions in this manual
- compliance with the relevant accident prevention regulations.



Note

The Dr. Hönle AG is not liable for damage resulting from inappropriate use of the equipment.

Warranty and liability

Warranty and liability

The 'General sales and delivery conditions' of the Dr. Hönle AG apply. The operator will have received these terms, at the latest upon signing the contract. The Dr. Hönle AG is not liable for any damage to persons or property arising from any one or more of the following:

- inappropriate use of the UVAHAND 250 GS,
- incorrect assembly, commissioning and operation of the UVAHAND 250 GS,
- operation of the UVAHAND 250 GS with faulty and/or non-functioning safety and protection devices,
- non-observance of the instructions given in the operating manual with reference to the safety, transport, storage, assembly, commissioning, operation and servicing of the device.
- unauthorised alterations to the construction of the UVAHAND 250 GS,
- negligent monitoring of equipment parts subject to wear
- repairs which are carried out incorrectly
- catastrophes, the action of foreign bodies or acts of God.

4 Safety regulations

Organisational measures

Organisational measures

All safety devices on the equipment must be tested for correct functioning regularly, prior to carrying out work and at each shift change. Look for external signs of damage.

Informal safety measures

Informal safety measures

In addition to this user's manual, the generally and locally applicable accident prevention and environmental protection regulations must be made available and observed.

Danger due to electricity

Danger due to electricity

The electrical components of the UVAHAND 250 GS must be inspected regularly.

Before commencing work:

- check all equipment components for external signs of damage
- check that all electric cables are in perfect condition.

Loose connections must be tightened and damaged wiring replaced immediately.



Danger

There is a danger caused by direct or indirect contact with electricity!

Thermal hazards

Thermal hazards

The following safety precautions must be observed when operating the UVAHAND 250 GS:

- Never touch the filter during operation.



Danger

There is an acute danger of fire and burns caused by the high temperature of the filter during operation (up to 200 °C)!

- A safe position (parking place) must be considered for UVAHAND 250 GS when switched on, but not being hand held. The lamp has spacer bars to create an air gap at the front of the filter glass, but must not be placed on combustible surfaces.
- The UVAHAND 250 GS can be placed on a black metal cooling panel, available as an option Article No 16708.
- There must always be a distance of at least 1m between the equipment and flammable objects.
- If the reflector is temporarily covered with a screen, leave a gap of 3 to 5 cm between the screen and the filter to prevent a build-up of heat.
- **The UV lamp must not be used inside explosion-protected areas.**



Danger

The UV lamp must not be used in explosion-protected areas because of the high temperature it reaches (1000 °C). There is an acute danger of explosion!

Danger caused by radiation

In addition to UVA rays, the radiation source of the UVAHAND 250 GS also emits short-wave UV radiation (UVC and UVB).
For this reason, the UVAHAND 250 GS must only be operated with an intact filter.



Danger

If not used properly, UV radiation can damage the skin and eyes!
It can cause severe sunburn, premature skin ageing, inflammation of the retina and conjunctiva and possible skin cancer.

The following instructions must be observed when working with the equipment:

- **Personal Protective Equipment must be worn to protect eyes and skin.**
- Protective goggles for the eyes should be to standard BS EN 170 especially Ultraviolet Filter Scale No 2-1.2 maximum spectral transmittance (313nm) 0.0003% (365nm) 0.3% model type should be for direct and peripheral exposure (side shielding).
- Gloves to protect hands should have a Clothing Protection Factor (CPF) of 30+ this is equivalent to the sun protection factor quoted for sunscreens. Marigold® Industrial have several blue nitrile glove types that score "very high" 30+ on the CPF index.
- Long sleeved garments should be worn to protect the forearms.
- Never look directly into the lamp when it is switched on.
- The UVAHAND 250 GS must not be operated without the filter.
- The process locality must be considered to ensure other personnel are not exposed to direct or indirect ultraviolet radiation. Shielding can be created using UV absorbing plastics or metals.
- The filter must be inspected regularly for signs of damage.
- The equipment must not be operated unless the filter is intact.



Note

Protective articles are listed in the chapter 'Order data for equipment, spare parts and accessories'.



Caution

UV radiation can cause damage to electronic components!
If EPROMs are used in the vicinity of the UVAHAND 250 GS, they must be protected against UV radiation.



Caution

UV radiation accelerates the aging process of materials!
Surfaces and objects sensitive to UV radiation must be protected before operation.

*Danger caused
by gas*

Danger caused by gas

Some materials under certain conditions can release fumes when irradiated with the UVAHAND 250 GS.

- Observe the safety data sheets for the materials to be radiated.
- Assess the risks created by work involving such substances and establish measures to meet control regulations.

- Refer to the **Control of Substances Hazardous to Health Regulations 1999 (COSHH)**
- Commonly used UV curing adhesives do not release fumes with exposure to UVAHAND 250 GS.
- UV rays encourage the production of ozone. For this reason, it is essential to ensure that the workroom is well ventilated.



Danger

The lamp contains mercury which is a hazardous substance! If it breaks when it gets hot or during operation, mercury vapour is released. Everyone present must leave the room immediately. The room must be thoroughly ventilated. Subsequently, a competent person must collect the mercury residue using a suitable binding agent and dispose of appropriately. Binding agent: Powdered copper or zinc or Protectasan

Firma Frankenbach,
D-61462 Königstein / Taunus
Tel.: ++49 (0)6174 / 3993

*Service, main-
tenance, reme-
dying faults*

Service, maintenance, remedying faults

All necessary servicing tasks are described in the chapter 'Servicing, maintenance and cleaning; Servicing'. They must be carried out to ensure trouble-free operation. In the unlikely event of faults occurring on the UVAHAND 250 GS, the chapter 'Faults' offers information on the causes of the fault and possible remedial action. In the unlikely event of a fault occurring which cannot be remedied by any of the procedures listed, please contact the customer service department of the Dr. Hönle AG. Replace any worn or damaged parts immediately. Use only original spare parts and replacement parts. Parts made by other manufacturers may not be satisfactory from the point of view of

safety technology or their suitability for this application. No changes may be made to the UVAHAND 250 GS, no fittings may be added or conversions carried out without obtaining the prior permission of the Dr. Hönle AG. In the event of claims under the warranty, for our repair and spare parts service, please contact:

Dr. Hönle AG
UV-Technologie
Lochhamer Schlag 1
D-82166 Gräfelfing / München

Tel.: +49 (0)89 / 856 08-0
Fax: +49 (0)89 / 856 08-148
E-mail: uv@hoenle.com
WebSite: www.hoenle.de



Warning

No repairs or changes to the equipment other than those described in this manual may be carried out.

5 Transport, storage, delivery

The UVAHAND 250 GS consists of two units which are delivered in two cartons, or, if desired, in a plastic box:

Lamp unit

- spacer bar
- connector cable for linking the lamp with the ballast
- filter frame with filter
- casing
- reflector with holder and UV lamp
- protective goggles
- protective gloves
- protective grille (optional)

Ballast

- The UVAHAND 250 GS is connected to the electricity supply via the ballast.

The delivered goods must be inspected to ensure that the consignment is complete, that there is no damage or anything else conspicuous. Any damage detected must be documented at once and reported immediately to your specialist dealer or directly to the Dr. Höhle AG.



Note

Packing material must be disposed of in an environment-friendly way or re-used if possible.

We would recommend that the packing material be kept to protect the equipment if it needs to be shipped onward or otherwise transported.

6 Installation, setting-up, commissioning and operation

General information

- When setting up the equipment, ensure that there are no fingerprints on the reflector, the lamp or the filter.
- Never touch the reflector.
- Only handle the UV lamp by its ceramic bases or with a clean cloth.
- If it is necessary to clean the reflector, the lamp and the filter, do so when they are cold, and always use a clean cloth and alcohol.



Note

Marks on the UV lamp or the reflector (e.g. fingerprints) will be burnt on when the lamp is put into operation. They reduce the service life and the performance of the UV lamp.

- Check the air inlets and outlets in the casing before switching the equipment on. There must be no foreign bodies covering or blocking the apertures.
- When the hand-held lamps are switched on, never deposit them on temperature-sensitive or combustible surfaces with the filter facing downwards.
- If the reflector is to be covered with a screen for any period of time during operation, ensure that there is a gap of between 3 and 5 cm between the screen and the filter. This will prevent the build-up of heat, which can lead to the destruction of the filter. While the spacer bar is fitted, this gap is automatically given, so please do not remove this bar.



Danger

Ensure that the cooling is sufficient when setting up the UVAHAND 250 GS. There is acute danger of fire if the equipment is not sufficiently cooled!

Neither the ambient temperature nor the cooling air temperature may exceed 45 °C.

- The equipment must be protected against chemical fumes.
- Operate the ballast only in vertical position.
- Do not place the sides of the ballast directly at a wall or another device, leave a minimum clearance of 5cm.
- Make sure when installing the ballast that the mains connector remains easily accessible at all times and that de-energisation of the ballast is not hindered.
- Only operate the UVAHAND 250 GS in dry rooms.

Setting-up

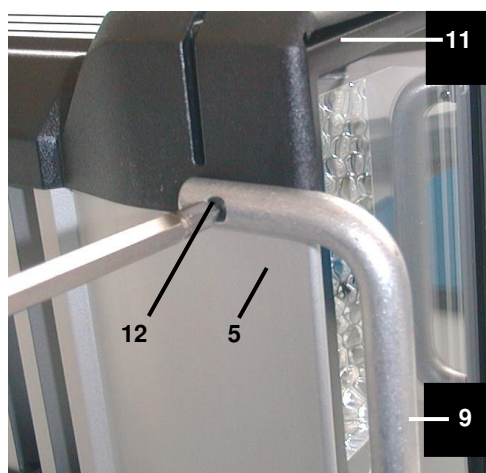
Setting-up

Fitting the protective grille

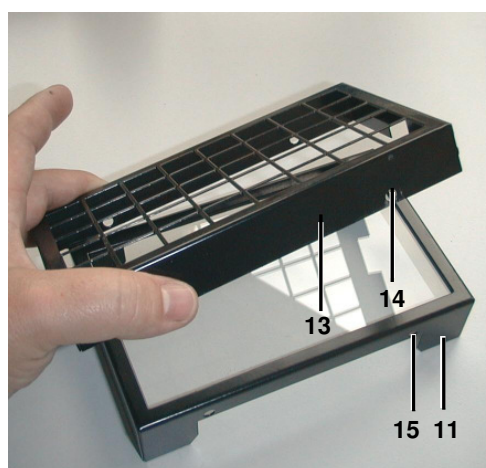
Fitting the protective grille

The protective grille is an optional extra.

- When fitting it, ensure that there are no fingerprints on the reflector, the lamp or the filter.



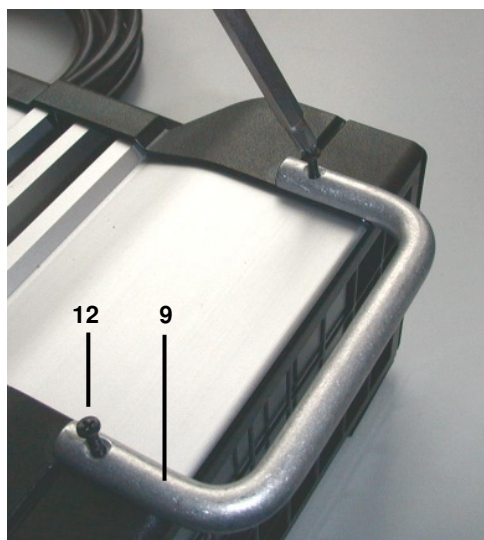
- Unscrew the four fixing screws (12) of the filter frame (11) and the spacer bar (9).
- Remove the spacer bar (9) and the filter screen (11) from the hand-held lamp (5).



- Place the protective grille (13) over the filter screen (11). The four bore holes (14) in the protective grille must be located directly over the four holes (15) in the filter screen (11).



- Insert the filter frame (11) with the fitted protective grille (13) into the opening at the front of the device.
- Check that it is fitted correctly.



- Bring the spacer bar (9) into position and tighten the four fixing screws (12) again.

The filter and the protective grille are now held in position and cannot fall off.

Commissioning

Commissioning

Connecting up to the mains

Connecting up to the mains



- Plug the connector cable of the UVAHAND 250 GS into the socket on the ballast.
- Plug the mains cable of the ballast into the socket.

The green lamp in the mains switch lights up.



Danger

The UVAHAND 250 GS may only be connected up to properly installed and earthed sockets.



Warning

Do not connect or disconnect the connector cable unless the ballast is switched off and de-energised.

Switching the UVAHAND 250 GS on and off

Switching the UVAHAND 250 GS on and off



- The UVAHAND 250 GS is switched on and off by pressing the mains switch on the ballast.

The UV lamp reaches its full power after approx. 3 minutes.
If the equipment is cold, the ignition process can take up to approx. 60 seconds.
The UVAHAND 250 GS is not equipped with hot ignition, which means that the lamp can

only be switched on again after a cooling-off period of 3 to 5 minutes.
If interrupting work for some time, the ballast should be disconnected from the mains.



Note

Each time the equipment is switched on and off, its service life is reduced. Avoid switching it on and off unnecessarily.

Operation

Operation

Operation as a hand-held lamp

Operation as a hand-held lamp

For ease of operation, the UVAHAND 250 GS is fitted with a handle which can be turned 90°.

7 Servicing, maintenance and cleaning

Servicing

Servicing

The UVAHAND 250 GS requires the following servicing work:

Daily:

Inspect the reflector, the UV filter and the UV lamp for dust and other soiling. If necessary, these parts must be cleaned, see: 'Cleaning the reflector, the UV filter and UV lamp'.

After 1000 operating hours (depending on operating conditions):

Replace the UV lamp, see: 'Replacing the UV lamp'.

Danger

Before carrying out servicing, switch off the equipment and disconnect at the mains.

Risk of serious, even fatal injury!



Servicing, maintenance and cleaning work must only be carried out when the equipment has cooled off. If the equipment has been in operation before the servicing, maintenance or cleaning, a cooling-off period of at least 10 minutes must be allowed.

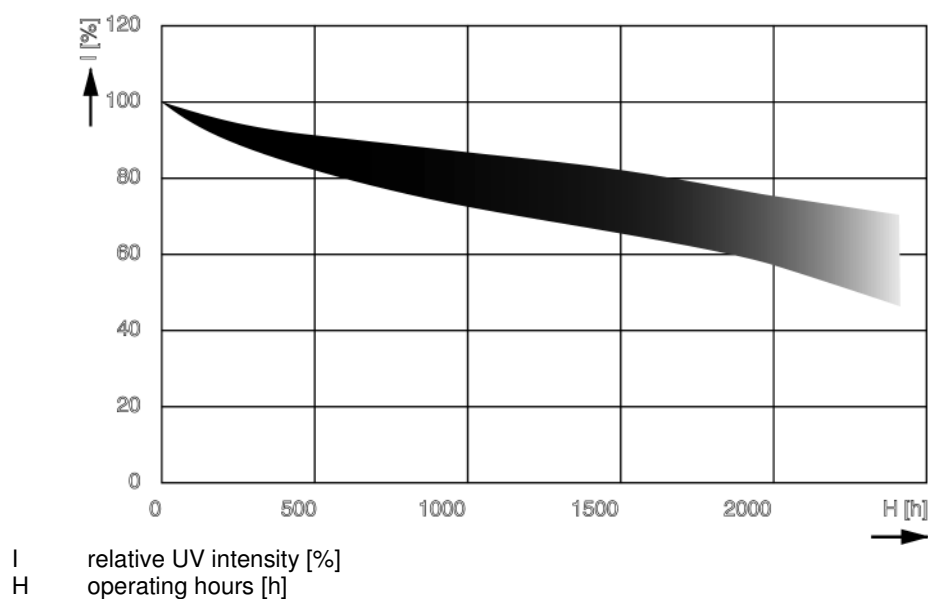
Acute danger of burns!

Replacing the UV lamp

Replacing the UV lamp

The lamp should be replaced after approx. 1000 hours of operation.

The relative intensity of the UV radiation decreases with the number of operating hours as shown on the graph.





Note

A reduction in the UV intensity makes applications less effective.



Warning

Use only spare parts manufactured by the Dr. Hönle AG. Safe operation of the UVAHAND 250 GS cannot be guaranteed if spare parts from other manufacturers are used.

The following replacement lamps are available from the Dr. Hönle AG:

lamp UV 250 F
lamp UV 250 G



Note

To order spare parts, see: 'Order data for equipment, spare parts and accessories; Spare parts'

The equipment must be opened to replace the UV lamp.

Danger

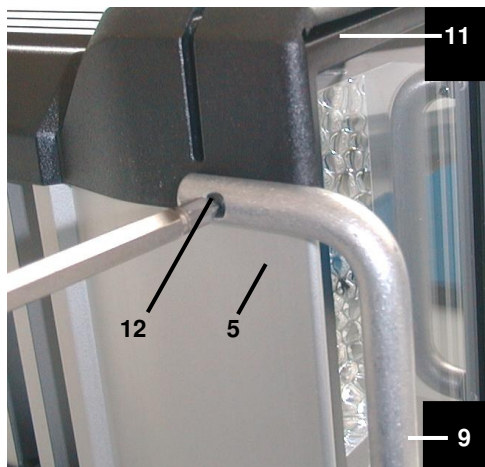
Before opening the equipment, switch it off and disconnect from the mains.

There is a risk of serious, even fatal injury!

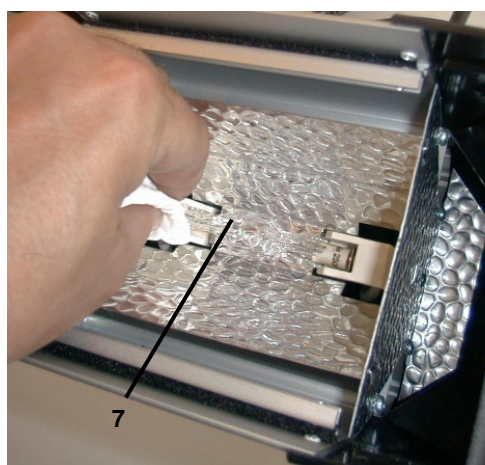


Do not open the equipment until it has cooled down. If the equipment has been in operation immediately before replacing the lamp, let it cool for at least 10 minutes before opening.

Acute danger of burns!



- Disconnect the equipment from the mains.
- Back off the four fixing screws (12) of the filter frame (11).
- Remove the spacer bar (9) and the filter frame (11) from the hand-held lamp (5).



- Pressing the lamp (7) at the sides, in the direction of the lamp axis, push it into one of the two lamp holders.

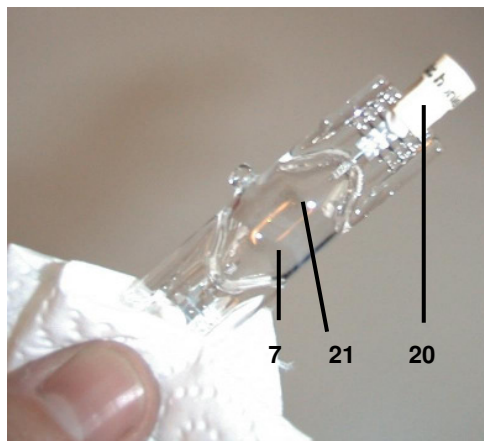
The UV lamp (7) springs free of the holder at its other end.

- Remove the UV lamp (7).



Note

UV lamps contain mercury and must therefore be disposed of as special waste.
Waste code number: 35 326



Always handle the new lamp (7) only by its two ceramic bases (20).

Do not touch the bulb (21).

- Check the new lamp for soiling.
- If necessary, clean the new lamp using a clean cloth and alcohol.
- Fit the new lamp.
- Check that there is correct contact between the lamp bases and the lamp holders.
- Place the filter frame on the casing.
- Check that it is fitted correctly.
- Put the spacer bar in position and tighten the four fixing screws. Do not over-tighten.

The UVAHAND 250 GS is ready for operation again.

Maintenance

Maintenance

Replacing the UV filter

Replacing the UV filter



Danger

Never operate the equipment if the filter is damaged or without a filter. UV radiation is a health hazard!

The UV filter is a unit comprising a filter and a filter frame.
The filter unit needs replacing if:

- the filter is damaged.
- a different radiation spectrum is required for the application.



Warning

Use only spare parts manufactured by the Dr. Höhle AG. The operational safety of the UVAHAND 250 GS cannot be guaranteed if other parts are used.

The following filter parts are available from the Dr. Höhle AG:

Filter H1 with frame

Filter BL 400 nm with frame



Note

To order spare parts, see: 'Order data for equipment, spare parts and accessories; Spare parts'.

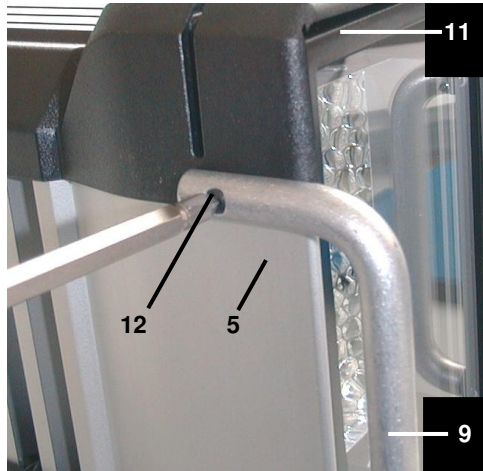
The equipment must be opened in order to replace the UV filter.



Danger

Before opening the equipment, switch it off and disconnect from the mains. There is a risk of serious, even fatal injury!

Let the lamp cool for at least 10 minutes before opening.
Acute danger of burns!



- Disconnect equipment from the mains.
- Unscrew the four fixing screws (12) of the filter frame (11).
- Remove the spacer bar (9) and the filter frame (11) from the hand-held lamp unit (5).

- Check the new filter unit for soiling.
- If necessary, clean the new filter unit, using a clean cloth and alcohol.
- Place the filter frame on the casing.
- Check that it is fitted correctly.
- Put the spacer bar in position and fit the four fixing screws. Do not over-tighten the screws.

The UVAHAND 250 GS is ready for operation again.

Cleaning

Cleaning

Cleaning the reflector, the UV filter and the UV lamp

Cleaning the reflector, the UV filter and the UV lamp

If the equipment is operated in a dust-laden environment, the reflector, the UV filter and the UV lamp become soiled very quickly. The equipment must be opened in order to clean the reflector, the UV filter or the UV lamp.

Danger

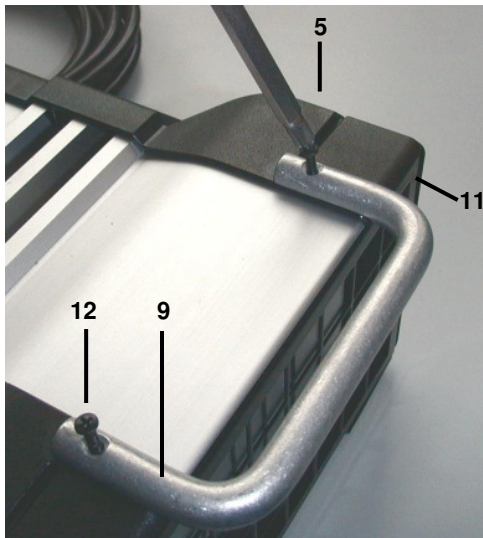


Before opening the equipment, switch it off and disconnect from the mains.

There is a risk of serious, even fatal injury!

Do not open the equipment until it has cooled down. If the equipment has been in operation immediately before cleaning, let it cool for at least 10 minutes before opening.

Acute danger of burns!



- Disconnect the equipment from the mains.
- Unscrew the four fixing screws (12) of the filter screen (11).
- Remove the spacer bar (9) and the filter frame (11) from the hand-held lamp unit (5).
- Clean the reflector, the filter and the UV lamp, using a clean cloth and alcohol.



Note

Do not use aggressive or abrasive agents for cleaning.

- Place the filter frame on the casing.
- Check that it is fitted correctly.
- Put the spacer bar in position and fit the four fixing screws. Do not over-tighten the screws.

The UVAHAND 250 GS is ready for operation again.

Cleaning the surface of the equipment

Never use aggressive or abrasive cleaning agents to clean the equipment surfaces. Use only mild cleaning agents containing tensides, cleaning cloths or a damp sponge. No moisture must be allowed to penetrate into the equipment.

Cleaning the surface of the equipment

8 Order data for equipment, spare parts and accessories

Ordering

Ordering

Order spare parts from our spare parts service:

Dr. Hönle AG
UV-Technologie
Lochhamer Schlag 1
D-82166 Gräfelfing / München

Tel.: +49 (0)89 / 856 08-0
Fax: +49 (0)89 / 856 08-148

Equipment

Equipment

Description	Article / Order Number
UVAHAND 250 GS H1	16620
UVAHAND 250 GS BL (400 nm)	16621

Spare parts

Spare parts

Description	Article / Order Number
Fuse (5 x 20 mm) T 3,15 A	33084
Temperature switch	15107
lamp UV 250 F	4269
lamp UV 250 G	8835
Filter H1 with frame	1468
Filter BL (400 nm) with frame	1467



Warning

Use only original spare parts from the Dr. Hönle AG. The operational safety of the UVAHAND 250 GS cannot be guaranteed if other parts are used.

Accessories*Accessories*

Description	Article / Order Number
Protective grille	1464
Transport case Systainer	30850
Protective goggles, tinted	0067
Protective goggles, clear	0068
Protective gloves	19754
Black metal cooling plate	16708

9 Faults

General information

General information

The following fault lists contain information on faults which may occur on the UVAHAND 250 GS, possible causes and tips on how to remedy the fault.

If a fault occurs on your equipment and cannot be remedied by following these instructions, contact the customer service department of the Dr. Hönle AG.

Contact address:

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UV-Technologie
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Fault list Part 1

Fault list Part 1

Fault	Cause of fault	Remedial action
Green lamp on the mains switch does not light up	Device is not plugged in to the mains.	Plug in to the mains, see: 'Setting-up, commissioning and operation; Connecting up to the mains'.
	No current at the mains socket.	Check the main fuse.
	Mains fuse is faulty.	Replace fuse.
UV lamp does not ignite	The ballast and the UVAHAND 250 GS are not connected.	Connect connecting cable, see: 'Setting-up, commissioning and operation; Connecting up to the mains'.
	The UVAHAND 250 GS is cold. The ignition process can take up to approx. 60 seconds.	Wait for ignition, see: 'Setting-up, commissioning and operation; Switching the UVAHAND 250 GS on and off'.
	UV lamp is not fitted correctly.	Fit UV lamp correctly, see: 'Setting-up, commissioning and operation; Replacing the UV lamp'.
	UV lamp is faulty.	Replace UV lamp, see: 'Setting-up, commissioning and operation; Replacing the UV lamp'.
	UV lamp is still hot after repeated use.	Allow the prescribed 3 to 5 minutes for the equipment to cool off, see: 'Setting-up, commissioning and operation; Switching the UVAHAND 250 GS on and off'.

Fault list Part 2

Fault list Part 2

Fault	Cause of fault	Remedial action
Casing becomes too hot, filter bursts	Ventilator is not running	Switch equipment off immediately. Send it to the customer service department.
	The air inlets and outlets of the ventilator are covered or blocked by foreign bodies.	Remove foreign body or covering, see: 'Setting-up, commissioning and operation; General information'.

10 Technical data

*Dimensions
and weights*

Dimensions and weights

	Width [mm]	Depth [mm]	Height [mm]	Weight [kg]
Mobile hand-held lamp unit	180	213	150	1,5
Ballast unit	115	255	170	ca. 4

Electrical data

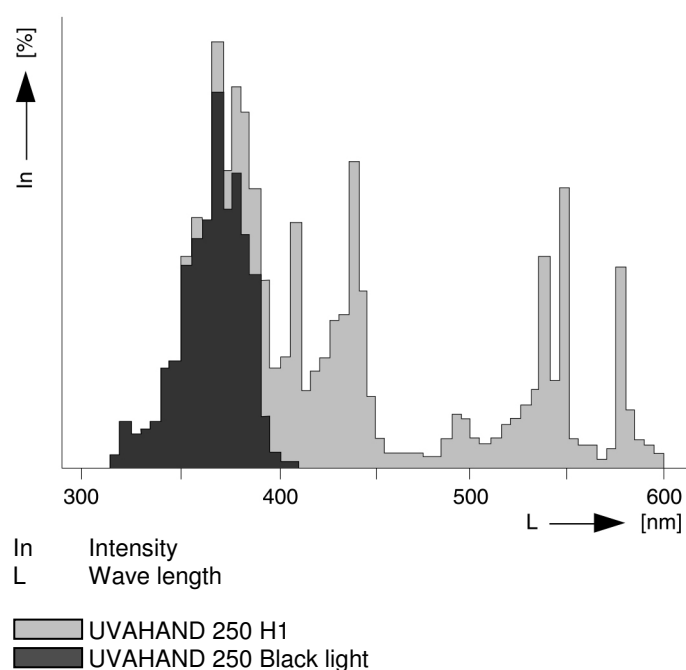
Electrical data

Ballast unit:	
Voltage	230 V ± 10 %
Mains frequency	50 Hz
Power consumption	310 W
Fuse	T 3,15 A, H

UV spectrum

UV spectrum

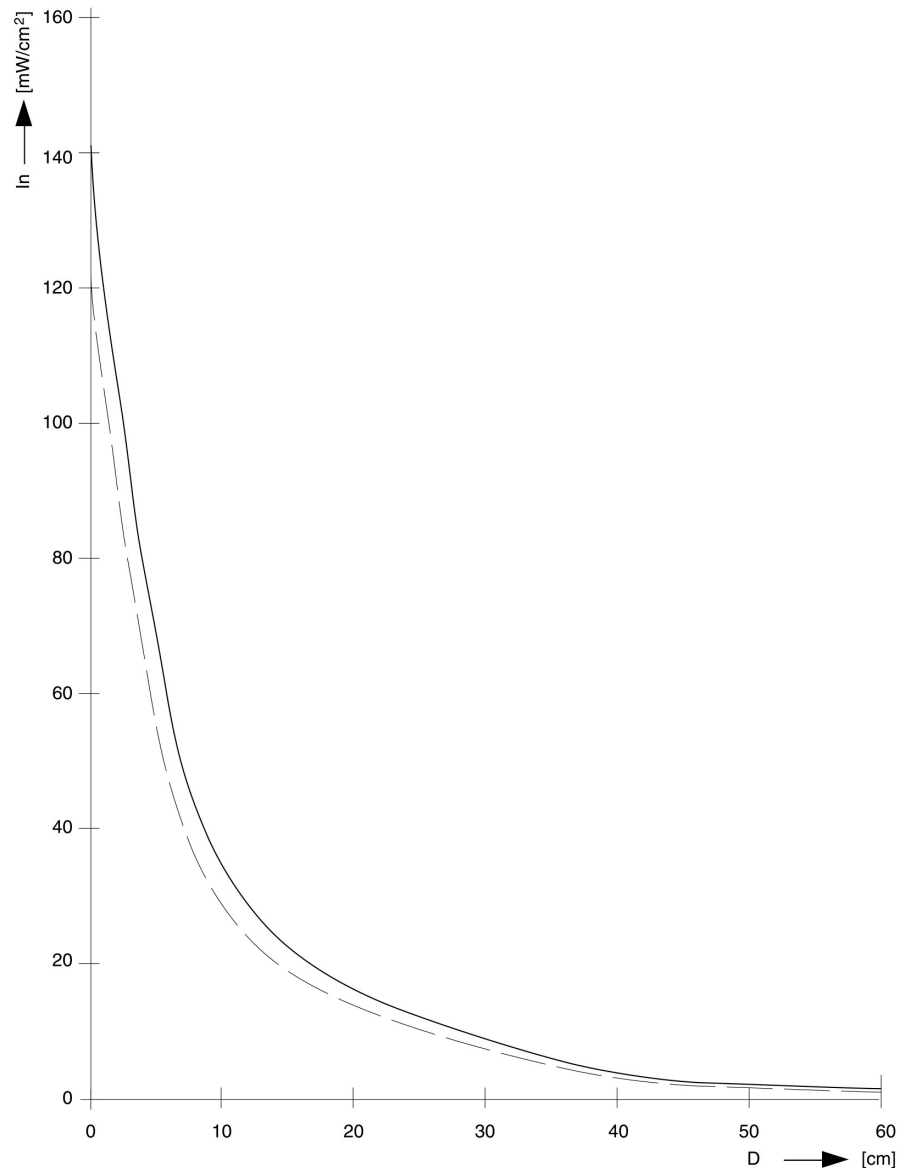
The UVAHAND 250 can be operated with different filters (H1 and BL 400 nm). See: 'Order data for equipment, spare parts and accessories; Spare parts'.
The following diagram shows the UV radiation spectra emitted by the UV lamp.



Radiation intensity

Radiation
intensity

The following diagram shows the respective radiation intensities for different filters on the lamp UV 250 F.



I_n UVA intensity
 D Distance

— Filter glass H1
- - - - - Filter glass BL